ARNAV KUMAR

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Education

- University: **Nanyang Technological University**, Singapore (Aug 2010 – Jun 2014)
  - Bachelor of Engineering (Honours) in Computer Science with a GPA of **4.78/5**.
  - Minor in Business, Specialization in Intelligent Systems.
  - **Dean's List** - Academic Year 2012-13, Academic Year 2013-14
  - Awarded President's Research Scholarship - offered to the top 5% of the cohort - Academic Year 2011-12
  - Awarded full scholarship for university education.
- High School: **St. James' School**, Kolkata, India (Graduated in May 2010)

Employment History

- **Zendesk, Inc.** - *Software Engineer, Zopim Live Chat (Backend/Platform)*, Singapore (Jul 2014 - Present)
  - *Public Rest API* - Worked on v1.0 of the public API. This involved opening up a subset of the internal API for public consumtion. Developed a view transformation layer to transform internal objects before returning publicly, an internal structure for authorization checks, and adding/modifying various endpoints as required.
  - *Webhooks* - Worked on v1 of the internal Webhooks project. Developed the delivery/retry mechanism for payload delivery.
  - *Entitlement Microservice* - Built a microservice for feature entitlement, gating and staggered rollout.
  - Developed a object oriented ORM like data-access layer with *Redis Cluster* as a backing store.
  - Miscellanous Responsibilites - Development environments, staging servers, continuous integration, etc.
    Technologies Used - Python, Django, Flask, Celery, Nose, JavaScript, Node, Redis & Redis Cluster, MySQL, Docker, etc.
- **IBM Corporation** - *Software Engineering (iOS) Intern*, Singapore (May 2013 - Aug 2013)
  - Developed core components for a mobile port of IBM Security Access Manager for Enterprise Single Sign-On, ISAM-ESSOm, for providing single sign-on capabilities on the iOS platform.
  - Built the fully-featured, UIWebView-based embedded browser which provides Web single sign-on capabilities.
- **IBM Corporation** - *Software Engineering Intern*, Singapore (Jun 2012 - Dec 2012)
  - Development – Prototyped new mobile (iOS) solutions aimed at enhancing user experience and security of sensitive user information. Explored and implemented methods of automated form - filling techniques. This project evolved into ISAM-ESSOm.
  - QA – Configuration and troubleshooting server side components of a new solution for Privileged Identity Management. Automated the user-creation process during load-testing, reducing time required by 66%.

Projects

- **TwitterCLDR** (Open-Source) (CoffeeScript, JavaScript, Ruby) (Jun 2014 - Present)
  - Regular contributor to Twitter's open source JavaScript implementation of the ICU (International Components for Unicode) that uses the Common Locale Data Repository to format dates, plurals, and more. Implemented features such as Text Segmentation, Unicode Regex Parser, Rule-based number formatting etc.
- **Virtual Interaction with Physical Objects Using Kinect and iPhone** - *Final Year Project* (Aug 2013 - Apr 2014)
  - Developed a proof-of-concept game demonstrating interaction with real world objects virtually.
  - Interfacing a Kinect, an iPhone, and a projector with a central server to process motion.
- **Twitter Visualizer** - *Data Mining* - (Python/Django) (Aug 2013 - Oct 2013)
  - Led a team of 6 to develop an app to generate a timeline for the worldwide flow of hashtags and track local trends.
- **Twitter Summarizer** - *Natural Language Processing* - (Java/Python) (Aug 2013 - Oct 2013)
  - Developed an application to summarize and analyse the sentiment of Twitter users about subjects after extracting descriptive phrases from tweets.
- **dBauggle** - *Software Engineering* - (iOS) (Jan 2013 - May 2013)
  - Led a team of 6 to build dBauggle, an iOS word-game for children with special needs, built with cocos2d.
- Pet Projects
  - **Pebble Music Tweeter** - Pebble Watchapp + companion iOS app using the Twitter API and Pebble SDK to Tweet the currently playing music from the smartwatch.

– **Heal The World** - A game to educate people about world issues and a platform to connect them with agencies if they want to volunteer. Built using Meteor.js.

Technical Skills

- Languages: Python, Javascript, CoffeeScript, Java, Objective-C, and others.
- Technologies (miscellaneous): Django, Flask, Celery, Nose, Node, Jasmine, Redis, Redis Cluster, MySQL, etc.
- Represented NTU in International Collegiate Programming Competition (ACM-ICPC) Regionals, Kuala Lumpur (2011).

Extra-Curricular Activities (University)

- **NTU Open Source Society** (Aug 2010 - May 2014)
  – **President** in AY2012-13, **Vice-President** in AY2011-12
  – Headed the management committee of the resident hacker-club that hosted weekly workshops, recruitment events and promoted technology on the campus.
  – Organised various workshops (& presented a few), recruitments events and Ubuntu release parties.
- **IT & Media Officer - Computer Engineering Club** (**Students' Council** equivalent) (Sept 2012 - Aug 2013)
  – Steered the annual branding initiative, produced and redesigned the School's publication and organised the school's first Hackathon. (AY2012-13)
- **Layout Editor - The Tribune**, Official Campus Newspaper (Sept 2011 - Aug 2012)
  – Led a rebranding initiative and major redesign of the newspaper, leading to 2x increase in readership and distribution.

Interests

- Reading, Writing, Podcasts, Music, Sports (football, rugby).
- Played Rugby competitively for 8 years.
- Member of the NTU Rugby Squad (Sept 2010 - Aug 2011).